

Fact Sheet



For Final Significant Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on April 20, 2010.

Permit Number: **R30-00100100-2010**
Application Received: **November 8, 2010**
Plant Identification Number: **03-54-00100100**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Pepper Compressor Station**
Mailing Address: **445 West Main Street; Clarksburg WV 26301**

Permit Action Number: *SM01* Revised: July 26, 2011

Physical Location:	Belington, Barbour County, West Virginia
UTM Coordinates:	574.20 km Easting • 4,337.79 km Northing • Zone 17
Directions:	Interstate 79 North to the Nutterfork exit. Turn right off the exit ramp onto Rt 20. Continue approximately 6 miles until turning left onto Rt 57. Stay on Rt 57 for approximately 10 miles then turn left onto Stewarts Run (CR18). Stay on Stewarts Run until turning left onto Brushy Fork Road (CR-7). Stay on Brushy Fork for 1 mile, station will be on left.

Facility Description

The Pepper Station is a natural gas transmission facility covered by Standard Industrial Classification (SIC) 4922.

Emissions Summary

As a result of this modification, there would be an annual increase in emissions of 0.02 TPY of PM and PM-10, 0.04 TPY of SO₂, 11.60 TPY of NO_x, 11.82 TPY of CO, 19.19 TPY of VOC, 6.86 TPY of Formaldehyde, and 9.94 TPY of Total HAPs.

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 235.41 TPY of NO_x. Due to this facility's potential to emit over 100 tons per year of NO_x, Pepper Compressor Station is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Indirect Heat Exchangers
	45CSR6	Air Pollution from Combustion
	45CSR13	
	45CSR16	NSPS
	45CSR30	Operating permit requirement.
	40CFR60, Subpart JJJJ	Stationary Spark Ignition ICE
	40CFR63, Subpart ZZZZ	Reciprocating Internal Combustion Engines
State Only:	45CSR4	Odors
	45CSR42	Greenhouse Gas Emissions Inventory Program

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2866	May 10, 2011	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

1. **45CSR2 – To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers.** This rule applies to the 1 MMBtu/hr-rated Glycol Dehydrator Reboiler Vent (RBV1), Condition 4.1.3 sets forth the applicable 10% opacity limit from Condition 4.1.3 from R13-2866 and via 45CSR§2-3.1. According to 45CSR§2-11, RBV1 is exempt from 45CSR2 MRR (monitoring, recordkeeping, and reporting) requirements because the heat input to RBV1 is less than ten (10) million BTUs per hour.” The following table sets out the pertinent sections of 45CSR2 for further analysis.

Rule Section	Rule Language
45CSR§2-3.1.	No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
45CSR§2-3.2.	Compliance with the visible emission requirements of subsection 3.1 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director.
45CSR§2-8.1.a.	The owner or operator of a fuel burning unit(s) shall demonstrate compliance with section 3 by periodic testing in accordance with 40 CFR Part 60, Appendix A, Method 9, or a certified continuous opacity monitoring system, as approved by the Director....
45CSR§2-11.1.	Any fuel burning unit(s) having a heat input under ten (10) million B.T.U.'s per hour will be exempt from sections 4, 5, 6, 8 and 9. However, failure to attain acceptable air quality in parts of some urban areas may require the mandatory control of these sources at a later date.

The language of 45CSR§2-3.1. specifies the opacity limitation that applies to RBV1, and is set forth as permit condition 4.1.3.

The language of 45CSR§2-3.2. specifies the two acceptable means of demonstrating compliance with the opacity limit, but *does not require* that Method 9 tests be performed or that a COMS be installed and utilized. This subsection only prescribes the methods.

The language of 45CSR§2-8.1.a. would be the requirement to perform testing (i.e., Method 9) or employ a COMS. When applicable, this subsection *requires* the testing or COMS utilization.

The language of 45CSR§2-11.1. is an exemption to sections 4 (weight emission standards), 5 (fugitive PM), 6 (registration), 8 (testing and MRR) and 9 (startups, shutdowns, malfunctions) of 45CSR2 for units less than 10 MMBtu/hr design heat input (DHI).

Since RBV1 meets the exemption criteria, it is not subject to monitoring in 45CSR§2-8.

2. **45CSR6 – Control of Air Pollution From Combustion of Refuge**
The Ground Level Flare (F1) is subject to Rule 6. The total particulate matter emission limit from 45CSR§6-4.1 is 1.30 lbs/hr. The current Rule 13 particulate matter limit for the Flare is 0.08 lbs/hr. Therefore compliance with the Rule 13 PM limit given in Condition 4.1.1 will assure compliance with the 45CSR6 limit. Condition 4.1.5 establishes an opacity limit for the Ground Level Flare (F1) of 20%, except as provided in Condition 4.1.6. Condition 4.1.7 limits partially unburned refuse, and Condition 4.1.8 requires the equipment to be designed, operated, and maintained to prevent the emission of objectionable odors. Condition 4.2.2 requires monthly visual emission checks as outlined in Method 22. If sources of visible emissions are seen, then the Permittee will perform a Method 9 evaluation within 24 hours, unless the visible emission condition is corrected in a timely manner.

3. 45CSR13 – Permits for Construction, Modification, Relocation, and Operation of Stationary Sources of Air Pollutants

Condition 4.1.1 establishes various hourly and annual emission limits for various criteria pollutants for the added equipment. Except for the NO_x, CO, and VOC limits for Engines EN03 and EN04, the limits are derived from the manufacturer specifications, as well as the total number of hours of operation. Condition 4.1.2 limits the amount of natural gas combusted for Engines EN03 and EN04, as well as for the Glycol Dehydrator Reboiler Vent RBV1. Condition 4.1.9 also limits the hours of operation for Engine 4 (EN04) to less than 500 hours per year. Condition 4.2.1 requires the Permittee to monitor and record the amount of hours of operation for Engine 4 (EN04). By following the hours of operation for applicable equipment, and by operating and maintaining this equipment via manufacturer specifications, these emission points will be in compliance with the associated R13-2866 emission limits.

4. 40CFR60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

Engine EN03 is subject to Subpart JJJJ because it was manufactured after July 1, 2007 and, since it exceeds 500 Horsepower, has the NO_x, CO, and VOC limits that come from Table 1 of Subpart JJJJ which are listed in Condition 4.1.1. Emergency Engine EN04 is subject to Subpart JJJJ because it was manufactured after January 1, 2009 and, since it exceeds 25 Horsepower, it has the NO_x, CO, and VOC limits that come from Table 1 of Subpart JJJJ which are listed in Condition 4.1.1. Since EN04 is certified, it has no testing requirements. Condition 4.4.3 requires the Engine EN04 to keep a maintenance plan and records of conducted maintenance and maintain and operate the Engine to minimize emissions. An initial performance test does need to be conducted within 1 year of engine startup. Condition 4.4.5 does require records that the engine and associated catalyst are maintained as per the manufacturer's emission-related written instructions. Condition 4.3.1 requires testing of Engine EN03 every 8,760 hours or 3 years, whichever comes first. The test methods are given in Condition 4.3.2. The Permittee must submit an initial notification and a copy of each performance test within 60 days after the test has been completed. These are given in Condition 4.5.1 and 4.5.2.

5. 40CFR63 Subpart ZZZZ – Reciprocating Internal Combustion Engines

The Engines EN03 and EN04 are both subject to this MACT. However, per 40CFR§63.6590(c), the engine meets the requirements of 40CFR63 Subpart ZZZZ by meeting the requirements of 40CFR60, Subpart JJJJ. Since the facility does not have the potential to emit greater than 10 TPY of any single HAP, nor 25 TPY of total HAPs, the facility is subject to the area source requirements of this Subpart.

Engines EN01 and EN02 are subject to the existing, 2 stroke lean burn, greater than 500 horsepower requirements of Subpart ZZZZ. Condition 4.1.11 provides maintenance activities for these engines. Condition 4.1.12 requires the engines to be operated and maintained according to the manufacturer's instructions or to develop their own maintenance plan and to minimize the engine's time spent idle. Condition 4.1.13 requires the Permittee to be in compliance with the operating limitations, and to operate and maintain the engines with safety and good air pollution control practices. Condition 4.1.14 also requires the Permittee to operate the engines according to the manufacturer's emission-related operation and maintenance instructions, or to develop and follow their own plan. Additionally, the Permittee must report each instance in which they did not meet the operating limitations given in Condition 4.1.11. Condition 4.4.4 requires recordkeeping of each notification and report submitted to comply with Subpart ZZZZ, as well as records of the occurrence and duration of each malfunction, performance tests and evaluations, maintenance performed on the air pollution control and monitoring equipment, and records of actions taken during periods of malfunction to minimize emissions.

As the applicable requirements of 40CFR63 Subpart ZZZZ have been incorporated into the permit, the Subpart ZZZZ Permit Shield provisions of Condition 3.7.2.f have been removed from the Permit.

6. Greenhouse Gas Reporting

Condition 3.1.11 and 3.5.10 have been added to the Permit to address greenhouse gas reporting per 45CSR42. All greenhouse gases emitted above the de minimis amounts must be reported.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

1. 45CSR27 – Toxic Air Pollutants

This facility does exceed the threshold of formaldehyde as described in 45CSR27. However, the process does not meet the definition of “Chemical Processing Unit” in Rule 27, and therefore is not subject to this rule.

2. Greenhouse Gas Tailoring Rule

This is a modified Title V Permit and there have been no modifications that would have triggered a PSD permit. As such, there are no applicable GHG permitting requirements.

3. 40 C.F.R. Part 64 - Compliance Assurance Monitoring (CAM)

This facility is not subject to CAM for the following reason:

A CAM assessment was done during the initial issuance of this permit, and CAM requirements were found to not apply to this facility. As a result of this modification, the only emission units that have potential pre-control device of 100 percent of the amount of tons per year of a pollutant with an emission limit that uses a control device to meet that limit are the Engine 3 (EN03) with the Glycol Dehydrator Regenerator Still (RSV1) with 524 TPY precontrol PTE for VOC. However, the limit for VOC is derived from 40CFR60 Subpart JJJJ. This subpart was promulgated on January 18, 2008.

40CFR§64.2(b)(1)(i) exempts CAM requirements for Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act. Therefore there are no applicable CAM requirements for this Facility.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: June 8, 2011
Ending Date: July 8, 2011

All written comments should be addressed to the following individual and office:

Mike Egnor
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

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Response to Comments (Statement of Basis)

Not applicable.